United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMESSIONER FOR PATENTS

1.0. Box 1450
Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

10/06/2005

EXAMINER

Esther E. Klein
IBM Corporation
Intellectual Property Law
5600 Cottle Road (L2PA/0142)

San Jose, CA 95193

WALTER, CRAIG E

PAPER NUMBER

ART UNIT

DATE MAILED: 10/06/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,088	12/12/2001	Henry Esmond Butterworth	GB919990144	9477

TITLE OF INVENTION: DATA STORAGE SYSTEM AND A METHOD OF STORING DATA INCLUDING A MULTI-LEVEL CACHE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	01/06/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571) 273-2885

				<u>- ` '</u>			
annronriate All further com	respondence including the le below or directed otherwise	Patent advance or	ders and notifica	ition of maintenance tees i	nired). Blocks 1 through 5 s will be mailed to the current ; and/or (b) indicating a sep	correspondence address as	
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Fee(s) Transmittal. Th	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must		
7590 10/06/2005				have its own certificat	e of mailing or transmission.		
Esther E. Klein				Ce	rtificate of Mailing or Trans	smission	
IBM Corporation	Τ			States Postal Service	his Fee(s) Transmittal is bein with sufficient postage for fir il Stop ISSUE FEE address	st class mail in an envelope	
Intellectual Property Law 5600 Cottle Road (L2PA/0142)				transmitted to the USI	II Stop ISSUE FEE address PTO (571) 273-2885, on the	above, or being facsimile late indicated below.	
San Jose, CA 95193		•				(Depositor's name)	
						(Signature)	
				Ļ		. (Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED IN	IVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/015,088	12/12/2001	ŀ	Henry Esmond B	utterworth	GB919990144	9477	
FITLE OF INVENTION: DA	ATA STORAGE SYSTEM	AND A METHOD	OF STORING	DATA INCLUDING A MI	ILTI-LEVEL CACHE		
THEE OF INVENTION. D	ATA STORAGE STOTEM	AND A METHOD	or broking	DATA INCLODING A MC	DETT DETTED CALCAID		
APPLN. TYPE	SMALL ENTITY	ISSUE FE	20	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE	
		\$1400		\$300	\$1700	01/06/2006	
Holiptovisional	nonprovisional NO		•		31700 n	01/00/2000	
EXAM		ART UN	IT	CLASS-SUBCLASS	J		
WALTER, CRAIG E		2188		711-122000			
I. Change of correspondence CFR 1.363).	address or indication of "Fo	ee Address" (37	2. For printing	g on the patent front page, l	ist		
			(1) the names	s of up to 3 registered pates alternatively,	nt attorneys 1		
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			(2) the name of a single firm (having as a member a 2				
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			registered atte 2 registered p	orney or agent) and the nan atent attorneys or agents. If he will be printed.	nes of up to		
3. ASSIGNEE NAME AND	RESIDENCE DATA TO B	E PRINTED ON T	HE PATENT (p	rint or type)	•		
PLEASE NOTE: Unless recordation as set forth in	an assignee is identified be 37 CFR 3.11. Completion	clow, no assignee of this form is NOT	data will appear Ta substitute for	on the patent. If an assign filing an assignment.	nee is identified below, the o	locument has been filed for	
(A) NAME OF ASSIGNE	EE .	(B)) RESIDENCE:	(CITY and STATE OR CO	UNTRY)	•	
Please check the appropriate	assignee category or catego	ries (will not be pri	nted on the pate	nt): 🔲 Individual 🔲 C	orporation or other private gr	oup entity Government	
a. The following fee(s) are	enclosed:	· 4b	. Payment of Fee	e(s):			
_, .,			he amount of the fee(s) is en	nclosed.			
☐ Publication Fee (No small entity discount permitted) ☐ Payment by cre			credit card. Form PTO-203	8 is attached.	•		
Advance Order - # of Copies Th			The Director	r is hereby authorized by out Number	harge the required fee(s), or (enclose an extra c	credit any overpayment, to copy of this form).	
5. Change in Entity Status	(from status indicated above						
a. Applicant claims SM	MALL ENTITY status. See	37 CFR 1.27.	☐ b. Applicant	is no longer claiming SMA	LL ENTITY status. See 37 C	FR 1.27(g)(2).	
The Director of the USPTO in NOTE: The Issue Fee and Punterest as shown by the reco	is requested to apply the Issuablication Fee (if required) was of the United States Pate	ue Fee and Publicat will not be accepted ent and Trademark	ion Fee (if any) I from anyone ot Office.	or to re-apply any previous her than the applicant; a reg	ly paid issue fee to the applic istered attorney or agent; or t	ation identified above. he assignee or other party in	
Authorized Signature			-	Date			
Typed or printed name							
This collection of information application. Confidential submitting the completed aphis form and/or suggestions does 1450, Alexandria, Virgi	n is required by 37 CFR 1.3 ty is governed by 35 U.S.C. plication form to the USPT for reducing this burden, st nia 22313-1450. DO NOT	11. The information 122 and 37 CFR 1 O. Time will vary lould be sent to the SEND FEES OR C	n is required to o 1.14. This collect depending upon Chief Informati COMPLETED FO	obtain or retain a benefit by tion is estimated to take 12 the individual case. Any c on Officer, U.S. Patent and DRMS TO THIS ADDRES	the public which is to file (an minutes to complete, includi omments on the amount of ti Trademark Office, U.S. Dep S. SEND TO: Commissioner	d by the USPTO to process) ng gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,	

Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/015,088	12/12/2001	Henry Esmond Butterworth	GB919990144	9477	
7590 10/06/2005			EXAMINER		
Esther E. Klein			WALTER, CRAIG E		
IBM Corporation	h. T		ART UNIT	PAPER NUMBER	
Intellectual Property Law 5600 Cottle Road (L2PA/0142) San Jose, CA 95193			2188		
			DATE MAILED: 10/06/2005		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 842 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 842 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.